



SAN FRANCISCO SECTION NEWSLETTER



Meeting Details:

- **Tuesday, January 13th**
- Sinbad's, San Francisco
- 6:00pm – Cocktail Hour
- 7:00pm – Dinner
- 8:00pm – Speaker
- \$30 members, \$15 students, \$35 non-members

Reservations Due By NOON, FRIDAY JANUARY 9th!

SECTION OFFICERS - 2003-2004

Chair

Corinne Stewart
Pacific Geotechnical
408-778-2818
chair@aegsf.org

Vice-Chair

Patrick Drumm
Earth Focus Geological Services
510-794-7495
vice-chair@aegsf.org

Treasurer

Chris Hundemer
Upp Geotechnology, Inc.
408-866-5436
treasurer@aegsf.org

Secretary

Janine Weber Band
EnviroVision, Inc.
415-203-2596
secretary@aegsf.org

Committee Chairs

Membership Chair

Jim Springer
membership_chair@aegsf.org

Short Course Chair

Ernest Solomon
650-948-3528
shortcourse_chair@aegsf.org

Field Trip Chair

Drew Kennedy
Sanders & Associates
(916) 729-8050
fieldtrip_chair@aegsf.org

CCGO Liaison

Jason Preece
Camp, Dresser, & McKee, Inc.
ccgo@aegsf.org

JANUARY 2004 PROGRAM

Jim Springer, Bonkowski & Associates, Inc.

A PERSONAL AND GEOLOGICAL JOURNEY TO AFGHANISTAN

Afghanistan is a mountainous country at the crossroads between the Middle East, central Asia, and the Indian Subcontinent. It is a land-locked country bordering on Kashmir, Tibet, Pakistan, Iran, Turkmenistan, Uzbekistan, and Tajikistan. The mountains were pushed up by oblique convergence along the western edge and northwest corner of the Indian-Eurasian collision zone. The region is characterized by structural complexity and high seismicity. The Pamir ranges in the northeast panhandle of Afghanistan overlie a series of northerly dipping thrust faults and reach elevations of over 7,900 meters. The remainder of the country consists of a several northeast-trending left-lateral strike-slip faults and thrust faults that divide the region into northeast-trending allochthonous terranes.

Significant mineral exploitation in Afghanistan includes gemstones, building stones, aggregate, natural gas and metallic ores. The climate is arid. Surface water and groundwater are derived primarily of snowmelt. Several hydroelectric dams are currently not functioning because of wartime damage. There is no power grid and no municipal water systems.

This talk is about my recent return to Afghanistan where I went to high school thirty years ago. I will describe a "windshield reconnaissance" of the geology of the Kabul area and the central highlands (Hazarajat). The trip included visits to the spectacular karst lakes of Band-I-Amir, a hydrothermal geyser system with hot springs near Bamyan, and deformed amphibolite schist within Kabul city limits. I will discuss the Afghan's use of earth materials for construction.

Speaker Biography

Jim Springer went to high school in Afghanistan and graduated from the American International School of Kabul in 1972. He has a BS in earth science from California State University, Hayward and an MS in geology from San Jose State University.

He has 22 years of professional experience in the geosciences including 16 years in the consulting business. He is a generalist who has done a wide variety of geologic work from hydraulic fracturing stress measurements and dam foundation grouting to oil spill cleanup and geophysical surveys. Jim Springer is currently a Senior Project Geologist at Bonkowski & Associates, Inc. His primary focus is on contaminated soil and groundwater remediation. He is an RG in California, Oregon, and Idaho; a CEG in California and Oregon; and an RGp in California.

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- ***Short Course and Field Trip Announcements***

Committee Chairs

Legislative Chair
 Julian C. Isham
 legislative_chair@aegsf.org

Publications Chair
 Bill Godwin
 Harding ESE
 publications_chair@aegsf.org

Awards Chair
 Keil Albert
 Geoconsultants, Inc.
 awards_chair@aegsf.org

Past Chair
 Jason Preece
 Camp, Dresser, & McKee, Inc.
 past_chair@aegsf.org

Student Liaison
 Robert Urban
 lavapoet@sbcglobal.net

Newsletter Editor
 Maile Smith
 Weiss Associates
 newsletter_editor@aegsf.org

Webmaster
 Craig Reid
 Upp Geotechnology
 webmaster@aegsf.org

The AEG San Francisco Section Newsletter is a monthly publication of the San Francisco Section of the AEG.

For more information, visit www.aegsf.org.

Submittals:

Deadline is the 20th of each month for the following issue. Contact Maile Smith by email (newsletter_editor@aegsf.org) for submittal. All submittals are subject to editing for space considerations. Employment notices are free if brief.

Address changes:

Please submit to Section Secretary, Janine Weber Band (secretary@aegsf.org).

Advertisements:

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business card:	\$15 / month
1/4 page:	\$30 / month
1/2 page:	\$60 / month

CHAIR'S MESSAGE

Happy New Year! Just writing the words seems unbelievable; 2003 flew by. The Section ended last year with a successful meeting at a new restaurant, Blake's, in San Jose. It was a little crowded and quite warm, but the staff and management at Blake's were great to work with and parking was very convenient (unless you're Bill Godwin carrying all of the publications). There were a lot of members (and nonmembers) who were really happy about having a San Jose meeting.

Pat Drumm already has quite a line-up of speakers for the next year. Also, I encourage all of you to attend student night in March. Last year it was probably our most poorly attended meeting; however, I thought it was the best collection of student presentations that I had seen and possibly the best presentation of the year. We will have our annual awards ceremony at the beginning of the January meeting.

I would like to congratulate Jason Preece on being voted CCGO's new Vice President. Jason is currently the Section's CCGO Liaison and Past Chair.

I hope to see many of you at AEG functions in 2004.

Corinne

Chair, AEG San Francisco Section

THE ANNUAL SECTION AWARDS CEREMONY WILL BE HELD AT THE BEGINNING OF THE JANUARY SECTION MEETING!

THE PRESENTATION OF THE YEAR AND OTHER AWARDS WILL BE GIVEN.

ENGINEERING GEOLOGY FOUNDATION

The future of AEG has never looked brighter, and opportunities for growth and development of our programs abound. We need you to support these opportunities through contributions to our Engineering Geology Foundation. There is no contribution that is too small or too large.

JOHNSTON FUND: Supports the administrative and intersociety coordination programs to coordinate technology transfer between various technical organizations, and coordinate scheduling of transfer meetings.

MARLIAVE FUND : Originally established by the Association of Engineering Geologists, this fund supports graduate and undergraduate scholarships, and educational workshops in Engineering Geology and Geotechnical Engineering.

LEGGET FUND: Supports the Foundation publication program which includes publication of benchmark papers, bibliographies, catalogues of services and instrumentation, and research reviews in Engineering Geology.

JAHNS FUND: Supports the development of speakers programs and provides financial support to technical speakers, including the Jahns Lecturer selected alternately by the Association Of Engineering Geologists and the Engineering Geology Division of the Geology Society of America.

GARDNER FUND: Supports research in Engineering Geology and Geotechnical Engineering through grants to individuals and organizations.

ECKEL FUND: Supports establishment, cataloguing and maintenance of the Engineering Geology archives.

TILFORD FUND : Supports the Norman R. Tilford Field Studies Scholarships, which are awards made to graduate and undergraduate students in support of field studies. The awards are made to qualified student members of the AEG based upon demonstrated scholarship, ability, participation, and potential for contributions to the profession.

SHLEMON FUND: Endowed by Roy J. Shlemon in 1997, this fund provides funding for specialty conferences in engineering geology and related fields. The first Shlemon Conference on Engineering Geology of Earth Fissures is scheduled for March 1 - April 3, 2004.

Please make check payable to and mail your contribution to:
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Denver, CO 80246

Or call or fax your credit card contribution to:
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Contact Corinne Stewart at chair@aegsf.org for more information on sponsorship.

AEG San Francisco Section Thanks our Academic Sponsor!

San Jose State University

San Jose, California

JANUARY SECTION MEETING DETAILS

The January Section Meeting will be held at Sinbad's restaurant, Pier 2, Embarcadero Street (cross street: Mission), San Francisco, California, 415-781-2555. Please enter through the main door and proceed to your left.

Directions

From 101 North - Exit I-80 East towards Bay Bridge/Oakland. Continue for about ½ mile and take the 7th Street exit towards Downtown. Bear left on 7th Street. After approximately ½ mile, turn right on Mission Street. Continue until Embarcadero Street.

From 80 West (Bay Bridge) - Take the Harrison Street exit towards Embarcadero. Continue on Fremont Street for ½ mile. Turn right on Mission Street. Continue until Embarcadero Street.

Reservations must be faxed to Chris Hundemer by noon on Friday, January 9th.

See the back cover of the newsletter for the RSVP form.

No Shows and Late Cancellations Will Be Charged!

NOVEMBER MEETING NOTES

Lloyd Cluff spoke about the performance of the Trans-Alaska Pipeline (TAP) after the November 2002 M7.9

earthquake on the Denali Fault (which the pipeline crosses). Cluff was on the original team that provided design parameters for the pipeline crossing of the Denali fault and he was invited to retrace his steps as a sort of "post-mortem" after the recent earthquake. It's not often that geologists actually get to see their theories tested in their lifetimes. Cluff's talk was accompanied by an absolutely stunning slide show that featured photos of the Denali Fault both before and after the earthquake.

Lloyd was one of the original geologists on the team that scouted the TAP route for potential seismic hazards in 1973. The team was made up of 18 lucky geologists from the USGS and the private sector; they had one short field season. The impetus for the Alaska study was the 1971 San Fernando Valley earthquake that took many scientists by surprise first by occurring on a previously unrecognized fault, and also with its unusually high peak acceleration of 1.25g. In 1971 the TAP was designed for no more than 0.5g. The similarity of the San Fernando fault with the Denali fault in Alaska prompted a re-review of design criteria and a desire to reevaluate geomorphic evidence of active faulting along the TAP route.

The geologic team was tasked with identifying, delineating, and characterizing active faults crossed by the pipeline route, developing design values for the faults, and making general recommendations for monitoring at active-fault crossings. Based on air photo interpretation followed by intensive field-checking, the team identified three active faults, with the Denali being designated the most active. The estimated fault parameters were incorporated into a new design for the pipeline resulting in the TAP crossing of the Denali fault being built on unanchored shoes resting on above-ground Teflon-coated steel beams (like ties for a railroad). This arrangement would allow ground movement beneath the pipe during an earthquake without breaking the pipe.

When the November 2002 earthquake struck, the pipeline performed perfectly with only minor damage. No oil was spilled. The fault behavior was perfectly within the expected ranges. When Cluff was offered the opportunity to go back out to view the aftermath he went armed with cameras. Some of the amazing post-earthquake features he showed included split trees, some of which had survived an earlier split from an earthquake in 1912 and had since re-grown. This evidence seems to support the theory that the old fault trace is most likely to be the next fault trace. Cluff also

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Applied Geomechanics – Santa Cruz

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noticed shatter effects were concentrated on the sides of ridges that faced toward the fault, and surmised that seismic energy was somehow being focused there.

Cluff was an energetic and enthusiastic speaker. He had us enthralled with his wonderful photos and the story of this unique experiment.

Janine Weber Band
Secretary, AEG San Francisco Section

Thank You!

Gregg Drilling & Testing, Inc.

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DECEMBER MEETING NOTES

The December Section meeting at Blake's in San Jose was extremely well attended. There were 66 people present; unfortunately, there were 9 no-shows. Phil Johnson and Bill Cole of Cotton, Shires and Associates gave a great talk on "the use of large-diameter boreholes and downhole logging methods in landslide investigations."

Downhole logging involves a geologist actually entering a vertical shaft approximately 2 feet in diameter. Downhole logging facilitates observing geology and measuring structural orientations. This information can be used to modify a preliminary cross section of a site. Downhole logging also facilitates sampling of critical surfaces. A sample can be driven through a plane containing shear gouge. The strength of the gouge can be tested by using a direct shear machine.

Safety precautions for downhole logging include the use of a rock shield to deflect any rocks that fall from above. Often an aluminum logging cage is used to provide additional protection. An air hose is fed down into the boring to provide fresh air and a 3-way gas detector is used to detect any noxious gasses in the boring. Communication between the geologist in the borehole and the drillers and other geologist(s) at the surface can be facilitated with the use of a voice-activated, 2-way speaker. A fall-arrest line attached to a safety harness will prevent a fall in the event that line suspending the logging cage should fail. A miner's headlamp can be used for light inside of the boring. The most important safety measure to be implemented in downhole logging is geologic judgment. An experienced downhole logger should go into a large-diameter boring first to evaluate the safety of the boring. Bell-out portions of boring can be cased to add stability.

Cuttings from the borehole can be examined while the hole is being drilled in order to determine what types of geologic materials will be observed. Before logging, the

walls of the borehole must be cleaned to remove smear from the auger or bucket. Running a tape down the side of the boring provides a centerline for logging.

Mr. Johnson and Mr. Cole also presented several investigations where large-diameter borings and downhole logging was used. They concluded their talk with several key points that support the use of downhole logging in landslide investigations: (1) Landslides are complicated when examined in detail, (2) For a slope stability analysis landslide geometry needs to be determined, (3) Landslide analysis demands the identification and understanding of a very thin basal rupture surface, and (4) It may be possible to create a continuous, vertical exposure through the landslide and into the underlying strata.

For more information on downhole logging, check out Phil Johnson and Bill Cole's paper, "The use of large-diameter boreholes and downhole logging methods in landslide investigations," in the Engineering Geology Practice in Northern California volume (page 95). If you don't already own this indispensable publication, contact our Publication Chair, Bill Godwin at publications_chair@aegsf.org. The publication is \$85.50 (regularly \$95) if you are an AEG member and have paid your current membership dues.

Corinne Stewart
Chair, AEG San Francisco Section

MEMBER UPDATES AND OTHER NEWS

AEG Strategic Plan

Participation by AEG members is vital to the development of a plan that will effectively represent our organization. AEG's Strategic Planning Committee will be meeting for a workshop at the end of January and will use the results of the survey in developing AEG's Strategic Plan. The AEG Executive Council and Board of Directors are committed to assuring that the plan will become the cornerstone of AEG's operations.

As an essential component of AEG's strategic planning process, AEG urges all members to contribute to the effort by responding to a member survey at <http://www.surveymonkey.com/s.asp?u=63785347048> by January 16, 2004.

For further information about the AEG strategic planning process, please visit the AEG home page. Thanks very much for taking the time to contribute to the future success of your AEG.

Wanted: Projector and Wireless Microphone

AEG-SF is in considerable need of a projector for PowerPoint and other computer presentations. The Section also needs a wireless microphone. If you or anyone you know might want to donate some equipment that is obsolete to them but still useful for AEG, please contact Corinne Stewart at chair@aegsf.org.

Note: *Equipment donated to AEG-SF is tax-deductible!*

Magnitude 6.6 Earthquake Strikes Bam, Iran

A strong earthquake occurred 180 km (115 miles) SE of Kerman, Iran at 6:56 PM MST, Dec 25, 2003 (Dec 26 at 5:26 AM local time in Iran). At least 30,000 people killed, 30,000 injured, 85 percent of buildings damaged or destroyed and infrastructure damaged in the Bam area. Maximum intensities IX at Bam and VIII at Baravat. Felt (V) at Kerman. Surface faulting observed on the Bam Fault between Bam and Baravat. Maximum acceleration of 0.98g recorded at Bam. The preliminary earthquake report is available at <http://earthquake.usgs.gov>.

Donations to help relief efforts can be made through Direct Relief International, 27 South La Patera Lane, Santa Barbara, California 93117, (805) 964-4767, or Fax: (805) 681-4838. Direct Relief works with a broad network of international and indigenous partners and coordinates with government and other nongovernmental agencies to ensure that resources are not wasted through unnecessary duplication of effort. The organization relies on private support -- not government contracts -- and is the largest international humanitarian assistance organization in California and among the 15 largest in the United States. More information is available on their website, www.directrelief.org.

Bush Administration Abandons Wetlands Rule

In a move welcomed by environmental groups, the Bush Administration has abandoned a plan to restrict the scope of the Clean Water Act as it applies to wetlands regulation. "Today we are reaffirming and bolstering protections for wetlands, which are vital for water quality, the health of our streams and wildlife habitat," said EPA Administrator Mike Leavitt on December 16. The original plan had involved the removal so-called "isolated" wetlands from the scope of CWA protections, following what the Bush Administration saw as the authority granted under a 2001 Supreme Court decision ruling that isolated wetlands are not "navigable waters" under the meaning of CWA and therefore not subject to CWS regulation. EPA estimates that as much as 20% percent of the nation's wetlands in the 48 contiguous states and Hawaii could fit under the category of "isolated."

It's still not too late...

The AEG SF section currently has 72 members who have not renewed!

It is now easier than ever to renew. You can renew online at www.aegweb.org by logging onto the member-only page using your member ID and password. You can then access and verify your contact information and renew with any major credit card.

If you need any further information, please contact Becky Roland at 303-757-2926 or e-mail broland@aegweb.org.

Recent Legislation Regarding Geologist and Geophysicist Registration

Recent legislation signed by Governor Davis changes the experience requirements for admittance into the Board's licensing examinations. Senate Bill 1079 (Figueroa) reduces the experience requirements for an applicant working under the responsible charge of an appropriately licensed individual to three years with a Bachelor's degree in Geology and to two years with a Master's or Ph.D. in Geology (more information at http://www.leginfo.ca.gov/pub/bill/sen/sb_1051-1100/sb_1079_bill_20030905_chaptered.pdf).

Senate Bill 363 (Figueroa) increases the fees for renewal licenses for the Board's four licenses (Registered Geologist, Registered Geophysicist, Certified Engineering Geologist, and Certified Hydrogeologist). The biennial fee for the RG and RGP will go from \$200 to \$400, and for the specialty licenses it will go from \$50 to \$100 for a two-year license. The fee increase will require promulgating new regulations (more information at http://www.leginfo.ca.gov/pub/bill/sen/sb_0351-0400/sb_363_bill_20031012_chaptered.pdf).

Both bills become effective on January 1, 2004.

(information provided by http://www.geology.ca.gov/hot_topics/bill1079_363.htm)

Melange Guidebook and Handouts Available

Do you lie awake that night wondering if the stratified rock or soil with boulders you described in your last report was actually a melange? Do you feel as if you're falling behind the standard of practice? Improve your understanding of melanges by adding these two AEG SF Section publications to your library!

Tunnels Through Fault Rocks and Tectonic Melanges: A Short Course for Engineering Geologists and Geotechnical Engineers

- Field Trip Guidebook, May 31, 2002
- Lecture Handouts and Reprints of Selected Papers (includes CD with Gunter Riedmuller's and Wulf Schubert's presentation), June 1, 2002

The field trip guidebook and lecture handout binder are available for \$50.00 each. Contact Betsy Mathieson (emathieson@exponent.com) or AEG SF Publications Chair, Bill Godwin (publications_chair@aegsf.org).

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CCGO Updates

The California Council of Geoscience Organizations (CCGO) e-mails monthly progress reports to CCGO members on record, as well as others who want to stay informed of their activities. The latest report is posted at www.ccco.org.

The CCGO advocates the use of sound geologic knowledge and practice by proposing, reviewing, and monitoring statutes, regulations, and public policies.

Please contact Executive Director Jane Gill (JaneHGill@aol.com) to be added to their mailing list.

Soil Tectonics

Glenn Borchardt, Ph.D. 510.654.1619
 Principal Soil Scientist fax: 815.327.5331
 Cert. Prof. Soil Sci. No. 24836 cell: 510.205.4562

P.O. Box 5335 gborchardt@usa.net
 Berkeley CA 94705-0335 www.soiltectonics.com


UPCOMING AEG-SF MEETINGS

Date: February 10, Tuesday
 Speaker: Chris Wills, California Geological Survey
 Topic: Landslides in Big Sur
 Place: Spenger's, Berkeley

Date: March 9, Tuesday
 Speaker: Student Night w/ Dr. John Williams
 Topic: Three Student Presentations
 Place: Sinbad's, San Francisco

Date: April 13, Tuesday
 Speaker: Donald Wells, Geomatrix Consultants
 Topic: Location of the Hayward Fault at UC Berkeley's Memorial Stadium
 Place: Restaurant to be Determined

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OTHER MEETING ANNOUNCEMENTS

Shlemon Conference, April 1 – 3, 2004

Hosted by the Engineering Geology Foundation and the Association of Engineering Geologists, the first annual Shlemon Conference in El Paso, Texas, will evaluate the present state of knowledge of earth fissures.

For more information, contact either Bill Haneberg, bill@haneberg.com, 206-871-9359 or Jeff Keaton, jeff.keaton@amec.com, 714-779-2591 ext. 308. Please visit the conference web site for more information: www.haneberg.com/fissure.

AEG Annual Meeting

Plan to attend the 2004 AEG Annual Meeting "at the Core of the Shores!" in Dearborn, Michigan, September 25th through October 3rd! For more information on the annual meeting, visit www.aegweb.org.

EARTH AS ART

Earth as Art 2, the second in the series of award-winning remote images of the earth, is now available online at <http://edc2.usgs.gov/imagegallery/>. Taken from three satellites, flying at 438 miles above the planet, more than 30 satellite images were selected for the exhibit based on their aesthetic value rather than their science applications. Cloud formations, coastlines, mountain ranges, islands, deltas, rivers seen from space take on patterns resembling abstract art works with their striking textures and brilliant colors. exhibit For information on either the Earth as Art 1 or the Earth as Art 2 exhibits, contact Dennis Hood at 605-594-6547 or by e-mail at hood@usgs.gov.

SHORT COURSES

CPT Short Courses

Gregg In Situ, Inc. is pleased to announce the scheduling of two short courses on the latest developments in the use of cone penetration testing (CPT) in environmental and geotechnical site investigations. The early registration deadline is January 16, 2004. See the enclosed short course registration form for additional details.

The courses are intended for Geotechnical Engineers and Engineering Geologists working with foundation design, liquefaction, and geotechnical site investigation and Geologists, Engineers, and Environmental Professionals working with environmental site assessment and remedial design. These short courses represent 8 hours of Professional Development Hours (PDH's) per day. A certificate will be issued upon completion.

The courses will be held on Monday February 16, 2004 (Environmental) and Tuesday February 17, 2004 (Geotechnical) from 8:30 a.m. to 5:00 p.m. (registration/continental breakfast begins at 8:00a.m.) at the Hyatt Regency, San Francisco Airport.

Seismic Hazards Analysis Workshop

The Sacramento Sections of AEG and ASCE will be jointly hosting Part 2 of a Seismic Hazards Analysis Workshop initiated last Spring. The workshop will be held on April 23, 2004 UC Davis Alumni Center next to the Mondavi Center. This will be an applied probabilistic seismic hazard analysis (PSHA) workshop applying the concepts developed in Part 1 and involving development of desired ground motion parameters. Attendance of Part 1 is not considered a pre-requisite to the Part 2 workshop.

The panel of instructors will include Dr. Norm Abrahamson, Dr. Robert Sewell, and several other seismologists, geotechnical engineers, and geologists from government agencies such as California Geological Survey (CGS) and US Geological Survey (USGS). We will be providing free evaluation and public domain versions of current software and will have representatives available for questions, including EZ-FRISK® and FRISKSP®. Breakout sessions provide hands-on experience using example problems to demonstrate available software in estimating ground motion parameters using provided notebook computers.

All attendees will receive a binder containing workshop notes, free versions for computer programs, and valuable reference materials. Because of the breakout session format, we will need to limit the workshop to 80 people on a first-come first-serve basis – So sign up early!

Cost, applications, and agenda details will be coming soon and will be provided through AEG and ASCE websites at <http://www.aegsacto.org/>.

For Short Course information and submittals, please contact:

Ernest Solomon
Short Course Chair, AEG San Francisco Section



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FIELD TRIPS

Seismic Hazard of the Range Front Thrust Faults, Northeastern Santa Cruz Mountains/Southwestern Santa Clara Valley, March or April 2004 (exact date to be determined). We are planning a field trip to observe a series of thrust faults mapped between the San Andreas fault and the northeastern topographic range

front of the Santa Cruz Mountains. The faults are collectively referred to as the Foothills Thrust System or the Peninsula Fold and Thrust Belt. Individual faults to be discussed include the Sargent, Berrocal, Shannon, Monte Vista, Stanford, and Serra faults. Preliminary field trip co-leaders include Bob McLaughlin, John Wakabayashi, Christopher Hitchcock, Ted Sayre, Reid Fisher, Steve Connelly, Ron Rubin, Glenn Borhardt, and Drew Kennedy. A primary objective of the field trip is to compile fault data for the Foothills Thrust System within a field trip guidebook readily available on the internet. Please contact Drew Kennedy at (916) 729-8050 should you wish to be a field trip co-leader, or have relevant fault data to be included in the guidebook. Field trip details will be announced in an upcoming newsletter.

For Field Trip information and submittals, please contact:
Drew Kennedy
Field Trip Chair, AEG San Francisco Section


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NCGS SCHOLARSHIP AVAILABLE

The Northern California Geological Society announces the availability of a Graduate Scholarship Award of \$1,000, available to candidates working toward the MS or PhD degree. Funding is provided for projects implemented during the 2004 calendar year. Application deadline is January 31, 2004 for a March 31, 2004 award date.

More information and applications can be requested from Randy E. Kirby, Chair, NCGS Scholarship Committee, 67 Brookwood Road, Unit 20, Orinda, California, 94563, 925-288-2344, rkirby.geosci@usa.net.



A SHORT COURSE ON
**The Latest Developments in
 ENVIRONMENTAL and GEOTECHNICAL
 CONE PENETRATION TESTING**



COURSE SCHEDULE/LOCATION

SAN FRANCISCO, CALIFORNIA

Monday - February 16, 2004 - Environmental
 Tuesday - February 17, 2004 - Geotechnical
8:30 a.m. to 5:00 p.m.

(Registration/Continental Breakfast begins at 8:00a.m.)

HYATT REGENCY - San Francisco Airport

1333 Bayshore Highway
 Burlingame, California 94010
 (650) 347-1234

WHO SHOULD ATTEND

The courses are intended for Geotechnical Engineers and Engineering Geologists working with foundation design, liquefaction, and geotechnical site investigation and Geologists, Engineers, and Environmental Professionals working with environmental site assessment and remedial design. These short courses represent 8 hours of Professional Development Hours (PDH's) per day. A certificate will be issued upon completion.

PURPOSE

Site characterization is the basic first step for any geotechnical or geo-environmental study. This short course will provide engineers and geologists with the knowledge and background to plan and supervise site investigation and to interpret CPT and SPT data. Emphasis will be given to recent advances and regulatory requirements in the area of liquefaction potential determination and remedial design considerations.

Gregg In Situ, Inc. is pleased to announce the scheduling of two short courses on the latest developments in the use of cone penetration testing (CPT) in environmental and geotechnical site investigations.

COURSE CONTENT

Monday, February 16th

Environmental Site Investigation

- CPT Equipment and Procedures
- CPT Data Interpretation
- Field Screening Tools
- Sampling Tools
- Small Diameter Well Installations
- Injection of Remediation Compounds
- Case Studies
- Field Demonstrations

Tuesday, February 17th

Geotechnical Site Investigation

- CPT Equipment and Procedures
- CPT Data Interpretation
- CPT for Liquefaction Assessment
- Case Studies
- Field Demonstrations

WORKED EXAMPLES AND CASE HISTORIES WILL BE GIVEN TO ILLUSTRATE THE CONCEPTS. A COMPREHENSIVE SET OF NOTES WILL BE PROVIDED TO ASSIST WITH THE COURSE MATERIAL.

COURSE INSTRUCTORS

Peter Robertson, Ph.D., Professor of Geotechnical Engineering, University of Alberta – Dr. Robertson has more than 25 years of professional experience in geotechnical engineering for both private industry and academia. Dr. Robertson has authored many papers on the application of the CPT for geotechnical and environmental engineering. His recent research has focused on the use of CPT in liquefaction investigation.

David Woeller, P.E., President, ConeTec, Inc. – Mr. Woeller is a geotechnical engineer with more than 25 years of professional experience in geotechnical site investigation and foundation design. He has specialized in the development of CPT techniques including the seismic cone, resistivity cone and SPT energy calibration systems for use in foundation design and liquefaction investigations.

ADDITIONAL COURSE DATES -- FEBRUARY 19TH & 20TH in HUNTINGTON BEACH and FEBRUARY 23RD in SAN DIEGO
 Visit our web site at www.greggdrilling.com/seminars for further details and alternate registration forms.

SHORT COURSE REGISTRATION FORM — SAN FRANCISCO

Payment must be received by Jan. 16, 2004 to qualify for early registration fee.

Please indicate which seminar you plan to attend by checking the appropriate box:

- Monday- February 16, 2004 (Environmental only) \$175.00 early registration - \$250.00 late registration
- Tuesday- February 17, 2004 (Geotechnical only) \$175.00 early registration - \$250.00 late registration
- Both days- Feb. 16 & 17, 2004 (Env. & Geo.) \$275.00 early registration - \$350.00 late registration

Mail/Fax your completed registration form to:

Gregg In Situ, Inc. PHONE: 562-427-6899
 2726 Walnut Ave. FAX: 562-427-3314
 Signal Hill, CA 90755 E-MAIL: mkeating@greggdrilling.com

ATTN: Maryann Keating
*(Make checks payable to: **Gregg In Situ, Inc.**)*

Attendee Name _____ Title _____ Company/Agency _____

Address _____ City, State, Zip _____

Phone _____ E-Mail Address _____

Payment information: *Must be completed for processing. (Check one)* My check # _____ in the amount of \$ _____ is enclosed.

Charge my credit card in the amount of \$ _____ AMEX VISA MasterCard Card number: _____ Exp. Date: _____

Card holder name: _____ Billing Address: _____

Registration fee includes seminar, reference materials, continental breakfast, lunch, and break refreshments. Class size is limited; early registration is advised. On-site registration will be on a space available basis. A charge of \$75.00 for any cancellation within 10 business days of the seminar will be assessed. No refund for cancellation within three business days of the seminar will be offered. Notice of cancellation or substitution must be submitted in writing on letterhead listing attendee name and seminar date.

Maile Smith
c/o Weiss Associates
350 East Middlefield Road
Mountain View, California 94043

**AEG San Francisco Section – January Newsletter
Monthly Section Meeting – Tuesday, January 13th
Sinbad’s, San Francisco**

CHECK OUT THE AEG SF SECTION WEBSITE AT WWW.AEGSF.ORG!

RESERVATION FORM

AEG SF Dinner Meeting – January 13, 2004 – 6:00 pm
Sinbad’s, San Francisco

Reservation Deadline: 12:00 PM, FRIDAY JANUARY 9th

Fax Reservation Form to Chris Hundemer, c/o Upp Geotechnology (408-866-9436)
Do not mail or fax payment – Check or Cash at the door – Make checks payable to AEG SF SECTION

Dinner and Meeting Cost: \$30 – members or spouses \$15 – student members \$35 – others

No shows and late cancellations will be charged!

NAME _____ COMPANY _____

TELEPHONE NO. _____ NO. OF PEOPLE _____

PLEASE CHOOSE AN ENTREE’: Fish Chicken Pasta

PERMANENT RESERVATION FORM

AEG San Francisco Section monthly dinner meetings are typically the 2nd Tuesday of each month.
I will attend and make payment for each meeting. If I am unable to attend, I agree to fax or mail a cancellation notice to
Chris Hundemer (fax: 408-866-9436) by NOON the Friday before the meeting or I will be charged for the meeting.

NAME _____ COMPANY _____

TELEPHONE NO. _____ NO. OF PEOPLE _____

BILLING ADDRESS _____

SIGNATURE _____ DATE _____ ENTRÉE _____